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Subject: Douglas-fir Tussock Moth Pheromone Detection Survey 2003 Report (NE04-01)

To: Forest Supervisors: Eldorado, Inyo, Lassen, Plumas, Modoc, Sierra, Stanislaus, Sequoia and Tahoe National Forests and the Lake Tahoe Basin Management Unit

Enclosed are the results of the 2003 cooperative Douglas-fir tussock moth (DFTM) pheromone detection survey. Average trap catches for 2003 showed increases in many plots compared to 2002 catches (Table 1). Data were collected for 163 plots (5 traps/plot) during 2003. There were 106 (65%) plots with an average of <25 males per trap and 57 plots (35%) that averaged 25 or more moths per trap. In 2002, only 4 % of the plots averaged >25 males moths per trap. Plots that averaged >25 moths per trap for 2003 were located on the following Ranger Districts: Amador, Placerville, and Pacific (Eldorado NF), Hat Creek (Lassen NF), Beckwourth and Mt. Hough (Plumas) Greenhorn and Tule River (Sequoia NF), Bass Lake (Sierra NF), Calaveras, Miwok and Summit (Stanislaus NF) and Downieville, Foresthill and Nevada City (Tahoe NF). In addition to these plots monitored on National Forest lands there were three plots that exceeded and average of 25 moths/trap on lands of other ownership. One plot was located in Yosemite National Park, 1 on B.L.M. land near Widow Mountain, west of the town of Bieber in Lassen County, and 1 plot monitored by C.D.F. near Hilton in Modoc County.

Increases and declines in trap counts are very common with DFTM populations. Based on the results of the 2003 monitoring, there may be some increases in activity by DFTM during 2004. During the field season of this year Forest Health Protection staff will monitor other life stages in the areas where DFTM activity exceeded an average of 25 males/trap. Field going personnel are urged to continue to check for evidence of feeding and defoliation on white fir throughout the susceptible host type this summer and fall and report any findings to their Forest Health Protection Shared Services Office.

Sufficient trapping materials have been ordered for the detection survey plots for 2004. They will be distributed to cooperators in June or July of this year. Please direct any questions and/or observations of feeding or defoliation to Sheri Smith (530-252-6667) or John Wenz at (209-532-3671). Updates on population monitoring will be distributed to land managers as needed. FHP appreciates the continued cooperation from all agencies in this ongoing west-wide survey effort.

Sheri Lee Smith  
Supervisory Entomologist  
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Table 1.

NUMBER OF DOUGLAS-FIR TUSSOCK MOTH PHEROMONE  
DETECTION SURVEY PLOTS BY TRAP CATCH 1979-2003

Year	Total Number Plots	NUMBER OF PLOTS WITH AN AVERAGE MOTH CATCH PER TRAP OF:													
		0<10	10<20	20<25	25<30	30<35	35<40	40<45	45<50	50<55	55<60	60<65	65<70	70<75	75+
1979	102	97	2	1	1	0	1	0	0	0	0	0	0	0	0
	100%	95%	2%	1%	1%		1%								
1980	99	99	0	0	0	0	0	0	0	0	0	0	0	0	0
	100%	100%													
1981	93	78	10	4	1	0	0	0	0	0	0	0	0	0	0
	100%	84%	10%	4%	2%										
1982	95	93	1	0	1	0	0	0	0	0	0	0	0	0	0
	100%	98%	1%		1%										
1983	98	87	6	1	1	3	0	0	0	0	0	0	0	0	0
	100%	89%	6%	1%	1%	3%									
1984	111	51	18	11	5	7	8	4	3	4	0	0	0	0	0
	100%	46%	16%	10%	4%	6%	7%	4%	3%	4%					
1985	105	58	14	4	7	6	5	1	2	4	1	2	0	1	0
	100%	55%	13%	4%	6%	6%	5%	1%	2%	4%	1%	2%		1%	
1986	107	64	16	4	8	6	1	3	0	1	0	1	1	1	1
	100%	60%	15%	3%	7%	6%	1%	3%		1%		1%	1%	1%	1%
1987	108	80	15	4	2	1	1	3	0	1	0	0	1	0	0
	100%	74%	14%	4%	2%	1%	1%	2%		1%			1%		
1988	124	106	9	3	3	0	2	1	0	0	0	0	0	0	0
	100%	86%	7%	2%	2%		2%	1%							
1989	130	129	1	0	0	0	0	0	0	0	0	0	0	0	0
	100%	99%	1%												
1990	138	135	1	0	1	1	0	0	0	0	0	0	0	0	0
	100%	97%	1%		1%	1%									
1991	143	135	4	1	0	0	2	1	0	0	0	0	0	0	0
	100%	94%	3%	1%			1%	1%							
1992	164	156	3	0	2	1	0	0	0	0	1	0	1	0	0
	100%	95%	1%		1%	1%					1%		1%		
1993	143	135	8	0	0	0	0	0	0	0	0	0	0	0	0
	100%	94%	6%												
1994	151	139	11	1	0	0	0	0	0	0	0	0	0	0	0
	100%	92%	7%	1%											
1995	158	77	35	13	16	7	7	3	0	0	0	0	0	0	0
	100%	49%	22%	8%	10%	4.5%	4.5%	2%							
1996	149	33	26	16	8	7	12	9	5	8	6	8	5	1	5
	100%	22%	17%	11%	6%	4%	8%	6%	3%	6%	4%	6%	3%	1%	3%
1997	142	88	27	10	9	4	3	0	0	1	0	0	0	0	0
	100%	62%	19%	7%	6%	3%	2%			<1%					
1998	159	81	22	11	9	6	3	10	7	5	2	1	1	1	0
	100%	51%	14%	7%	6%	3%	2%	6%	4%	3%	<1%	<1%	<1%	<1%	
1999	159	126	20	5	3	2	2	0	0	0	1	0	0	0	0
	100%	79%	13%	3%	2%	1%	1%				1%				
2000	185	154	15	4	4	0	1	2	2	2	0	0	1	0	0
	100%	83%	8%	2%	2%		<1%	1%	1%	1%			<1%		
2001	183	95	57	13	10	6	0	1	1	0	0	0	0	0	0
	100%	52%	31%	7%	5%	3%		<1%	<1%						
2002	168	126	31	5	3	3	0	0	0	0	0	0	0	0	0
	100%	75%	18%	3%	2%	2%									
2003	163	53	42	11	11	10	14	13	3	1	4	0	1	0	0
	100%	32%	26%	7%	7%	6%	8%	8%	2%	1%	2%		1%		